

Name: \_\_\_\_\_

## Unit 4

### Practice Test

Teacher: \_\_\_\_\_

Algebra Pd: \_\_\_\_\_

\_\_\_\_\_  
*Day      Month      Year*

**Part One:** Equations: Solve each equation. Show all work and box your final answer.  
Recommended: Check your work via substitution.

1. $2a = -12$	2. $b + 3 = -15$
3. $4(c - 2) = 16$	4. $12 + \frac{x}{-3} = 10$
5. $\frac{2}{3}e = 12$	6. $-9f - 2 + 5f = 4f + 14$
7. $-3(2g + 6) = -10g - 10 + 4g - 8$	8. $2(3h - 6) = 4h - 10 + 2h$
9. $\frac{5}{6}i - \frac{2}{3} = 4$	10. $3j - 10 = 6$

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**Part Two: Algebraic Sentences:** Please answer each question in complete sentences using algebraic terms. Echo the prompt and avoid vague words.

11. What is the major goal of solving an equation?

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12. When do we use inverse operations and when do we use combining like terms when solving an equation? Mention a specific case for each.

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**Part Three: Justifying Steps while Solving an Equation:**

13. Given Equation: $-4(x + 2) = 8x + 4$	Property
$-4x - 8 = 8x + 4$	<hr/>
$-12x - 8 = 4$	<hr/>
$-12x = 12$	<hr/>
$x = -1$	<hr/>

**Part Four: Word Problem:** You must solve this word problem algebraically and complete all steps.

14. Emmanuel purchased five bags of hot Cheetos and spent an additional seven dollars at CVS. Jerin purchased three bags of hot Cheetos and spent an additional thirteen dollars at CVS. They each spent exactly the same amount of money.  
How much does one bag of hot Cheetos cost?

a. Define a variable that makes sense for the situation. Use the magic word.

b. Write an equation that describes the situation.

c. Solve the equation.

d. Check via substitution and reality.